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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,663	11/29/2001	Eung Tae Kim	K-0356	2622

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EXAMINER

PHILIPPE, GIMS S

ART UNIT PAPER NUMBER

2613

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/995,663

**Applicant(s)**

KIM, EUNG TAE

**Examiner**

Gims S Philippe

**Art Unit**

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-12 and 17-19 is/are rejected.
- 7) ☐ Claim(s) 4, 5, 7 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

### DETAILED ACTION

This is a first action in response to application no. 09/995,663 filed on November 29 2001 in which claims 1-19 are presented for examination.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 8-12, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US Patent no. 5,831,688) in view of Chang et al. (US Patent no. 6,735,253).

Regarding claims 1, 11, and 17, Yamada discloses a method and apparatus of transcoding image data in an image display system comprising a decoding part decoding an input video data stream in order to restore pixel values of the input data stream (See Yamada col. 3, lines 12-19 and lines 26-31), an encoding part to generate an output video data stream having a different data bit rate (See col. 3, lines 31-42 and col. 6, lines 38-47).

It is noted that Yamada is silent about performing an active global motion compensation using global motion parameters estimated based on motion and macro-block information of said input video data stream and further performing motion compensation on said output video data stream using said motion information.

Chang discloses a transcoding apparatus and method including the steps of performing an active global motion compensation using global motion parameters estimated based on motion and macro-block information of said input video data stream and further performing motion compensation on said output video data stream using said motion information (See Chang's fig. 6, item 600, col. 5, lines 27-33, and col. 9, lines 11-18).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Yamada's transcoding method by incorporating Chang's step of performing an active global motion compensation using global motion parameters estimated based on motion and macro-block information of said input video data stream and further performing motion compensation on said output video data stream using said motion information. The motivation for performing such a modification in Yamada is to provide comprehensive techniques for indexing and manipulating digital video in the compressed domain as taught by Chang (See Chang col. 4, lines 7-9).

As per claims 2-3, 8-10, 12, 18, and 19, most of the limitations of these claims have been noted in the above rejection of claims 1, and 11. It is noted that although Yamada

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discloses a block matching technique to show motion (See Yamada figs. 2 and 4B, items 14, 15, 17, and col. 6, lines 28-38), it is silent about providing motion parameters representing a camera zoom level, a horizontal camera rotation level as claimed.

Chang discloses a transcoding apparatus and method including the step of providing motion parameters representing a camera zoom level, a horizontal camera rotation level (See Chang col. 9, lines 11-18, col. 11, lines 10-24).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Yamada's transcoding by incorporating Chang's motion parameters representing a camera zoom level, a horizontal camera rotation level. The motivation for performing such a modification in Yamada is to provide useful information for video indexing if users want to browse through efficiently when searching for key content of the video without full decoding as taught by Chang (See col. 3, lines 45-62).

3. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US Patent no. 5,831,688) in view of Chang et al. (US Patent no. 6,735,253) as applied to claims 1 and 11, and further in view of Nakaya (US Patent no. 6,178,202).

Regarding claims 6 and 15, most of the limitations of these claims have been noted in the above rejection of claims 1 and 11.

It is noted that the combination of Yamada and Chang is silent about performing the global motion using a bilinear interpolation method.

Nakaya discloses a transcoding method including the steps of performing the global motion using a bilinear interpolation method (See Nakaya col. 10, lines 44-58).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying the transcoding method of the proposed combination of Yamada and Chang by incorporating Nakaya's step of performing the global motion using a bilinear interpolation method. The motivation for performing such a modification is to prevent mismatch when the motion vector is quantized for each pixel as taught by Nakaya (See Nakaya col. 5, lines 54-67).

4. Claims 4, 5, 7, and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nishikawa et al. (US Patent no. 6246438) teaches image coded data re-encoding apparatus without one decoding the original image coded data.

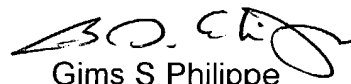
Nakaya (US Patent no. 6687302) teaches method of coding and decoding image.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S Philippe whose telephone number is (703) 305-1107. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on (703) 305-4780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gims S Philippe  
Primary Examiner  
Art Unit 2613

GSP

October 15, 2004